

We study theory of infinite products, summarize basic definitions, terms and theorems, which we apply to some elementary examples in this work. Moreover we concern with convergence of products with real factors. We also prove required and sufficient condition of convergence or absolute convergence of infinite product.

The main objective of the work is derivation of sine product formula, where we also prove the theorem of exchanging limit and infinite product. These results we use for deduction cosine product formula.